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RESEARCH ARTICLE

The relation between dimensions of personality and personality pathology and offence type and severity in juvenile delinquents

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In a representative sample of 142 incarcerated Dutch male juveniles, normal personality dimensions were assessed with the Big Five Inventory and pathological personality dimensions with the Dimensional Assessment of Personality Pathology - Basic Questionnaire for Adolescents. Participants' criminal charges were derived from TULP-Youth, an official Dutch judicial registration system. Charges were categorized (against morality/against life/violent/violent with property/property) and were assigned a signal value representing their severity. Personality dimensions appear not to be related to offence type or severity. Other factors are suggested to be of greater importance, like the trajectory of criminal development and a possible neuro-maturational gap, causing sensitivity to juvenile delinquency at a certain age. Recommendations for further research are presented.

Keywords: young offenders; personality; personality pathology; crime

Introduction

Research comparing the normal and pathological personality dimensions of delinquents with those of the normal population is abundant. Classic as well as recent studies have repeatedly demonstrated significant differences in personality composition between delinquent and community samples, and certain personality profiles appear to be associated with delinquency and are predictive of past and future criminal activity (e.g. Eysenck, 1964; Heaven, 1996; John, Caspi, Robins, Moffitt, & Stouthamer-Loeber, 1994; Quinsey, Skilling, Lalumière, & Craig, 2004; Steiner, Cauffman, & Duxbury, 1999; Van Dam, Janssens, & De Bruyn, 2005). Particularly personality deficits related to behavioral self-regulation, such as irresponsibility, lack of

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remorse, and impulsivity have recently been suggested to be implicated in violence, antisocial behavior, and delinquency (e.g. Miller & Lynam, 2001; Steiner et al., 1999; Wilson, Rojas, Haapanen, Duxbury, & Steiner, 2001). The dimensions of personality agreeableness and, to a lesser extent, conscientiousness and neuroticism are mentioned as significant “domain” correlates (Heaven, 1996). However, findings are inconsistent and have prevented identification of specific relations between delinquency and personality dimensions. This could be because delinquent samples are heterogeneous with respect to personality characteristics (Steiner et al., 1999). In this article, we therefore suggest that personality dimensions may not only differ between delinquent and normal population samples, but that they may also differ *within* the population of delinquents. Two major factors on which delinquents may be differentiated are the type and the severity of the offence they are charged with. In previous research, violent offenders had significantly more chaotic lifestyles and displayed greater psychopathology than sex or general offenders (Craig, Browne, Beech, & Springer, 2006). It seems likely that that a person who has committed a violent crime like aggravated battery or manslaughter could be dissimilar from persons charged with property offences or offences against morality in terms of personality dimensions such as neuroticism, lack of remorse, or impulsivity. Specific knowledge about the relationship between dimensions of personality and personality disorders and criminality could contribute to the understanding of criminal behavior in youngsters and the prediction of recidivism and facilitate development of effective interventions. The aim of the present study was hence to investigate whether dimensions of personality and personality pathology in delinquents are related to the type and severity of their criminal charge.

Method

Sample

All males between the age of 12 and 21 in a sample of juvenile delinquents, residing in a Dutch youth detention center, who were remanded in custody or were sentenced to detention without compulsory treatment, were eligible for inclusion in the study. Exclusion criteria were: a poor command of the Dutch language, the presence of brain trauma, autism, and a current psychotic episode. Juveniles received a € 15 gift coupon for their participation. Two times a week, the two juveniles who had most recently arrived at the detention center were selected to partake. Their supervisor and attending psychologist or psychiatrist were consulted to assess whether they met any exclusion criteria. Altogether, 168 male juveniles were asked to participate in the study. Information regarding the purpose and the procedure of the study was provided to them and it was explained that participation was voluntary and anonymous and that consent could be

withdrawn anytime. They were asked to sign an informed consent form. The parents or caretakers of participants under the age of 18 were sent an information form, a copy of the juvenile's signed consent form, and an objection form with which they could declare dissent and discontinue the juvenile's participation immediately. Seventeen juveniles refused to partake initially and for nine minor juveniles no parental consent was obtained. The total sample of juvenile delinquents thus consisted of 142 boys, resulting in a response rate of 84.5 percent. However, not all measures were obtained from every participant. Several juveniles were transferred to another detention center or were released from custody during their participation and hence could not finish the study. In addition, a number of participants refused to complete the investigation for various reasons: it was too difficult, too long in duration, they were discouraged by their fellow delinquents, etcetera. For 108 juveniles, complete data were available. However, all data obtained were used. Statistical analyses were performed to investigate whether there were differences between the participants who did ($N = 108$) and did not complete ($N = 34$) the study on any of the measures and whether there were any differences between the total sample of juvenile delinquents ($N = 142$) and the juveniles who refused to participate or for whom no parental consent was obtained ($N = 26$) in terms of age, country of birth, and offence severity. No significant differences were demonstrated. Hence, there was no indication that drop-out or refusal factors might have biased the results.

In sum, 142 juvenile delinquents participated in the study and complete data were available for 108 of them. Mean age of the sample was 16.46 years ($SD = 1.52$; range 13–20). Table 1 presents data pertaining to participants' country of birth and the offences they were charged with. In line with findings in the total population of Dutch male incarcerated juveniles, ethnic minorities were overrepresented and participants were convicted of violent and property offences most commonly (Centraal Bureau voor de Statistiek, 2003; Dienst Justitiële Inrichtingen, 2008).

Measures

The normal Big Five personality dimensions agreeableness, extraversion, neuroticism, openness to experience, and conscientiousness were assessed with the Big Five Inventory (BFI; John, Donahue, & Kentle, 1991; Dutch translation: Koot & Tromp, personal communication, March, 2004). To measure dimensions of personality pathology, a preliminary version of the adolescent version of the Dimensional Assessment of Personality Pathology-Basic Questionnaire (DAPP-BQ; Livesley & Jackson, 2002; Dutch translation: Tromp & Koot, 2008; preliminary version: Koot & Tromp, personal communication, March, 2004) was used. This version was identical to the final adolescent version for which good psychometric properties were

Table 1. Participants' country of birth and criminal charge.

Measure	Frequency (%)
Country of birth	
The Netherlands	72.6
The Netherlands Antilles	9.6
Morocco	5.2
Turkey	1.5
Surinam	1.5
Other non-western country	9.6
Criminal charge	
Against morality	
Rape	4.5
Statutory rape	2.2
Against life	
Homicide	9.7
Murder	0.7
Violent	
Assault	8.9
Assault inflicting actual bodily harm	2.2
Arson	2.2
Battery	6.7
Aggravated battery	4.5
Violent with property	
Extortion	10.4
Robbery	27.6
Property	
Burglary	6.7
Connivance	1.5
Theft	11.9
Possession and dealing of illegal drugs	0.7

demonstrated in 2008 (Tromp & Koot, 2008) and was approved by John Livesley, the original author of the DAPP-BQ. For current purposes, the higher-order dimensions of personality pathology Emotional Dysregulation and Dissocial Behavior and their respective lower-order dimensions were of interest. We did not use the dimensions inhibitedness and compulsivity for this purpose. Emotional dysregulation comprises the lower-order dimensions of submissiveness, cognitive distortion, identity problems, affective instability, oppositionality, anxiety, social avoidance, suspiciousness, insecure attachment, narcissism, and self harm. Dissocial behavior comprises the lower-order dimensions of callousness, stimulus seeking, conduct problems, and rejection. As one reviewer helpfully pointed out, the dimension of stimulus seeking includes both impulsivity and sensation seeking measures. A principal components analysis with all items of the stimulus seeking subscale validated the use of impulsivity and sensation

seeking as separate scales, and their factor scores were used for further analyses. Data on juvenile delinquents' country of birth and date of birth and the charges for which they were currently detained were derived from TULP-Youth, the official judicial registration system used in all youth detention centers in the Netherlands. For 36 participants, charges were missing from TULP-Youth and were obtained from the Judicial Documentation System of the Dutch Ministry of Justice. When a participant was charged with multiple offences, the one with the most severe penalty clause was used as the index offence. Charges were appraised in terms of category (against morality/against life/violent/violent with property/property) and severity. To rate the severity of a participant's criminal charge, the 'signal values' of the BooG (Beslissingsondersteuning onderzoek Geestvermogens; Van Kordelaar, 2002; Van Kordelaar & Wagenvoort, 2006) were used. BooG is a Dutch judicial expert system that is applied to decide whether a delinquent should be examined psychologically and/or psychiatrically. One of the BooG factors on which this decision is grounded is the signal value of the offence, which represents its nature, severity and associated odds for an assessment. All major offences distinguished by the Dutch penal code have been assigned a specific signal value that finds its basis in Van Kordelaar's extensive research on the relation between the offence and the outcome of the psychologically an/or psychiatrically examination (2002). For the present study, the severity of participants' charges was rated with signal values specifically formulated for a juvenile population (Van Kordelaar, personal communication, December 2007). Signal values are continuous scores that ranged from 18 to 68 in the current sample. High scores indicate the offence to be more severe.

Procedure

When participants' consent was obtained, they were then handed the BFI and DAPP-BQ, which they were allowed to fill out either individually or in the presence of the researcher. Once they had completed the investigation, participants received the €15 gift coupon. Afterwards, participants' country and date of birth and criminal charges were derived from TULP-youth or the Judicial Documentation System of the Dutch Ministry of Justice.

Statistical analyses

At first, descriptive statistics were used to check for any violations of the assumptions underlying the statistical techniques that would be used. When warranted, missing values on the BFI and DAPP-BQ measures were then imputed by means of the regression method provided by the statistical program used (SPSS; Statistical Program for the Social Sciences). This method applies multiple regression in order to estimate one's missing value

on the basis of his or her present values, using the correlation matrix derived from the sample's complete data. To ascertain that statistical test was justified, a negative or positive error component was added to each regression estimate thus obtained. These error terms were chosen randomly from the observed residuals of complete cases.

To investigate whether the five categories of offenders differed in terms of personality dimensions, four multivariate analyses of variance were performed: one with the normal personality dimensions, one with the higher-order pathological personality dimensions, one with the emotional dysregulation lower-order dimensions, and one with the dissocial behavior lower-order dimensions as dependent variables. Offence category was used as an independent variable. The relationship between the normal personality dimensions and offence severity and the pathological personality dimensions and offence severity were investigated using Pearson product-moment correlation coefficients.

Results

BFI dimensions of normal personality and offence category and severity

To investigate whether the five categories of offenders differed in scores on the normal personality dimensions, a multivariate analysis of variance was performed with offence category (against morality/against life/violent/violent with property/property) as an independent variable. The neuroticism, agreeableness, conscientiousness, extraversion, and openness to experience measures were used as dependent variables. Results demonstrated that there were no differences in any of the personality scores between the offence categories ($F(20, 356) = 0.97$, Wilks' $\lambda = 0.83$, $p = 0.50$). The type of offence committed thus does not appear to be related to juvenile delinquents' normal personality organization.

To examine whether the BFI dimensions of normal personality were related to offence severity, Pearson product-moment correlation coefficients were calculated. Results are demonstrated in Table 2. None of the dimensions of normal personality was significantly related to offence severity.

Table 2. Correlations between the BFI dimensions of normal personality and offence severity ($N = 111$).

Dimension	Correlation with offence severity
Neuroticism	0.06
Extraversion	-0.07
Openness to experience	0.09
Agreeableness	-0.09
Conscientiousness	-0.13

DAPP-BQ dimensions of pathological personality and offence category and severity

To explore whether the scores on the emotional dysregulation and dissocial behavior pathological personality dimensions differed between the five categories of offenders, multivariate analyses of variance were performed with offence category as an independent variable. Firstly, the emotional dysregulation and dissocial behavior higher-order dimensions were used as dependent variables. No differences in the personality scores between the offence categories were found ($F(8, 196) = 0.70$, Wilks' $\lambda = 0.95$, $p = 0.69$). A multivariate analysis with the emotional dysregulation lower-order dimensions did not demonstrate any significant differences as well ($F(44, 343) = 0.87$, Wilks' $\lambda = 0.66$, $p = 0.68$), and neither did the analysis with the dissocial behavior lower-order dimensions, including the sensation seeking and impulsivity factor scores ($F(24, 315) = 0.85$, Wilks' $\lambda = 0.80$, $p = 0.67$). Juvenile delinquents' personality pathology appeared to be unrelated to the category of the offence they were charged with.

To examine whether the DAPP-BQ personality dimensions were related to offence severity, Pearson product-moment correlation coefficients were calculated. Results are demonstrated in Table 3. None of the dimensions of personality pathology was significantly related to offence severity.

Table 3. Correlations between the DAPP-BQ pathological personality dimensions and offence severity ($N = 107$).

Dimension	Correlation with offence severity
Emotional dysregulation	0.11
Submissiveness	0.17
Cognitive distortion	0.14
Identity problems	0.04
Affective instability	0.07
Oppositionality	0.17
Anxiety	0.08
Social avoidance	0.14
Suspiciousness	0.04
Insecure attachment	0.06
Narcissism	0.09
Self harm	0.01
Dissocial behavior	0.10
Callousness	0.15
Rejection	0.11
Conduct problems	0.00
Stimulus seeking	0.07
Sensation seeking	0.10
Impulsivity	0.01

Results failed to show any association between normal and pathological personality dimensions, offence category, and offence severity. Additional analyses comparing the personality scores between violent and non-violent offenders and between sex offenders and other offenders did not demonstrate any significant differences as well¹.

Discussion

Correlational analyses and multivariate analyses of variance failed to demonstrate any significant relation between the Big Five normal personality dimensions and offence category and severity. With respect to offence category and severity and the pathological personality dimensions of emotional dysregulation and dissocial behavior, no significant associations were found as well. Looking at the most relevant subscales of the dimension dissocial behavior: sensation seeking and impulsivity, there were also no associations found. These results suggest that neither the type of offence nor the severity of offence, as reflected by its signal value, are affected by juvenile delinquents' normal personality organization or pathological personality dimensions or relevant subscales.

Previous research has repeatedly demonstrated personality dimensions to differ between criminal and normal populations. However, by investigating personality correlates of offence type and severity, the current study may be the first to investigate personality differences within a criminal population. Our results indicate that, although personality might affect one's predisposition to engage in delinquent behavior, especially the dimensions agreeableness and, to a lesser extent, conscientiousness and neuroticism (Heaven, 1996), normal and pathological personality dimensions are not related to the type of crime one is inclined to commit, nor to its severity. Thus, normal and pathological personality dimensions are different between non-delinquents and delinquents, but cannot account for differences within the group of delinquents. A limitation of using questionnaires in studies in general and, in offenders in particular, is the possibility of social desirability response bias (MacEwan, Davis, MacKenzie, & Mullen, 2009). Our findings, however, can be explained by those of Farrington (2000), who reported that juveniles who commit one type of violent crime also tend to commit other types of violent and non-violent offences. In addition, Farrington demonstrated that juvenile delinquents charged with a violent crime tend to be persistent and frequent offenders. Offence type and severity thus could perhaps not be associated with differences between delinquents as much as with their criminal development or 'career'; the offences one commits may increase in number and become more serious over time. There is some evidence supporting the suggestion that whether juveniles become persistent offenders and whether their crimes evolve in violence and severity depends on social and neurobiological factors instead of on individual

characteristics (Fabio et al., 2006; Fergusson & Horwood, 2002; Hoeve et al., 2008; Moffitt, 1993).

We therefore propose that the offences that juveniles are charged with may not be affected by personality but merely reflect their position in their criminal career. The offence may be a first or successive event on the trajectory of becoming a persistent offender. It is important to explore whether other factors affect this course. Literature on this subject suggests that environmental factors like parenting style (violence, poor supervision, harsh discipline, physical abuse), poverty, a broken family, peer delinquency, living in a high-crime neighborhood, victimization, substance abuse, and school failure may be more important risk factors and perhaps better indicators for the trajectory besides the category and severity of the offence (Farrington, 2000). Risk factors for juvenile violence like neuropsychological factors (high impulsiveness and low intelligence, possibly linked to the executive functions of the brain) are important factors for further research on this topic (Farrington, 2000). Neuropsychological problems could interact cumulatively with the criminogenic environments across development, culminating in a pathological personality. According to the theory of adolescence-limited antisocial behavior, a contemporary maturity gap would encourage juveniles to mimic antisocial behavior in ways that are normative and adjustive (Moffitt, 1993). Roth and Bartsch (2004) postulated a theory in which he proposes the adolescence to be a "sensible period" for the beginning of a delinquent development. For future research it is not only important to concentrate on the interaction between biologic and psychosocial factors, which are important for the developmental pathway (Farrington, 2000), but also to focus on the possible neuropsychological factors of this neuromaturation gap to search for possibilities to influence the sensibility for delinquency in this period.

Note

1. Contact the corresponding author for further details on these analyses.

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